

CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

FACILITY NAME: Joliet Station #9

FACILITY ADDRESS: Patterson Rd., 1 Mi. W. of Brandon Rd
Joliet, IL 60436

US EPA RECORDS CENTER REGION 5



530231

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?
YES _____ NO X
 2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within the storage area?
YES _____ NO X
 3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula* considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area as defined in Appendix D?
YES _____ NO X
 4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula* considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake?
YES _____ NO X
 5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in an amount greater than or equal to 10,000 gallons?
YES _____ NO X
- * If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative formula must be attached to this form.

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Jeffrey P. Smith
Signature

Jeffrey P. Smith
Name (please type or print)

Supervisor of Water Quality
Title

February 16, 1993
Date

SPILL PREVENTION CONTROL

AND

COUNTERMEASURE PLANS

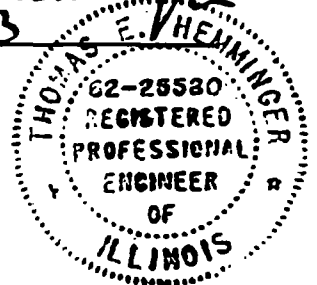
FOR

JOLIET STATION 9

I have reviewed this plan and the facility was examined by a responsible person. I attest that this SPCC Plan has been prepared in accordance with good engineering practices and satisfies the requirements of FR 34164, CFR Title 40 Part 112.

Date: 4-16-93

SEAL



In keeping with the mandate of section 112-7 of CFR 40 part 112 stating that the SPCC Plan have "...the full approval of management at a level with authority to commit the necessary resources", I have reviewed this plan and do hereby express my full support.

Approved: Jack J. Kowalczyk

Jack J. Kowalczyk

Joliet Station #9

Plant Manager

Date: April 7, 1993

SPCC PLAN CONTENTS

- I. Introduction
 - A. Personnel Instruction
 - B. Security
 - C. General Description
- II. List of Oil Storage Facilities
- III. Plan Description (for Each Item Listed in II)
 - A. Identification of Item
 - B. Location and Description of Item
 - C. Plan
- IV. Oil Transfer System
- V. Oil Spill History
- VI. Record Keeping
- VII. Training
- VIII. Implementation of Plan
 - A. Effective Date
 - B. Personnel Responsibility
 - C. Reporting of Discharges
- IX. Appendixes
 - A. Appendix A - Drawings
 - B. Appendix B - Lists and Procedures
 - 1. Hazardous Material Incident Reporting Procedure, ADM-ST9-PG-XX-001
 - 2. PCB Control, Station Procedure, EM-ST9-XX-001
 - 3. List of Oil Clean-up Materials
 - 4. Spill History

I. INTRODUCTION

The following is the Spill Prevention Control and Countermeasure Plans for Joliet Station 9. All applicable station personnel will be instructed on the contents of this report.

Commonwealth Edison's Joliet Generating Station 9 is located in the outskirts of Joliet, Illinois along the southern bank of the Des Plaines River. The station is comprised of six coal fired units of which only Unit 6, rated at 328 MW, is operational (Units 1 through 5 have been retired). The station also contains eight fast-start gas turbine peaking units and five black-start diesel units.

The station has adequate security arrangements. There is a fence enclosing the entire station property. The main entrance gatehouse is manned 24 hours a day, seven days a week. The east gate entrance is manned during such time contractors are on Station #9 property, otherwise it remains closed at all times. The gate entrance to the peaking-units area is maintained locked when personnel are not present at the peaker site.

The station is equipped with appropriate containment and diversionary structures to prevent accidental oil spills from reaching the Des Plaines River. This has been made possible by the construction of two catch basins, the Roof and Yard Runoff Basin, an earthen basin having a capacity of 2,500,000 gallons, and the Coal Pile Runoff Basin with a capacity of 1,250,000 gallons. All roof and floor drains from the main plant and the Crib House are discharged into the Roof and Yard Basin. Runoff from the yard in the near perimeter of the plant has also been routed into this basin. Any accidental spills that might occur inside or outside the plant will ultimately be detected as surface oil in the basin. The basin's contents are passed through a corrugated-plate oil separator (1000 gpm nominal flow) before discharge into the river. A recirculation line is provided to recycle the effluent back to the basin if it does not meet effluent standards. Oil collected by the separator is stored in an adjacent 7500 gal. storage tank.

In the event of an oil spill reaching the basin which is deemed too large to be handled by the oil separator, the oil will be skimmed off and disposed of properly off-site by a special waste permitted hauler.

Oil spills which might occur in the switchyard or the peaking-units area will, if large enough, drain into the Coal Pile Runoff Basin. There are trenches and curbing in these areas to guide the flow into the basin. Water which collects in the basin is designed to be processed through a coalescer prior to discharge into the river. Recirculation of the coalescer effluent is also available for use during startups or in any occasion in which the effluent is unsuitable for discharge. However, under normal operation the runoff collected in the basin is not sufficient in volume to be discharged to the Lincoln Quarry. If any oil is collected it can be stored in an adjacent 500 gal. waste oil storage tank.

Both basins are inspected each shift, three times per day for evidence of oil spills.

Because of RCRA requirements regarding ammoniated EDTA wastes, an additional plan description has been added to cover chemical cleaning spills or leakage. During a Boiler 5 chemical cleaning, the boiler will hold about 108,408 gal. of ammoniated EDTA in solution at between 0.5% and 5.0% unreacted EDTA. Normal procedures set up prior to the cleaning would call for specific contingency plans to be used should there be external boiler leakage of this solution. In the past this plan has called for the diversion to and the use of the Metal Cleaning Waste Equalization Tank as a temporary storage tank, after which time the station can employ the option of incinerating EDTA wastes in Boiler 5 or disposing of wastes off site using a special waste permitted hauler. Ultimately, any uncontrolled leakage or spill would reach and be contained by the 2,500,000 gallon Roof and Yard Basin mentioned above. Disposal of spent ammoniated EDTA wastes would be accomplished in an environmentally acceptable manner.

II. LIST OF OIL STORAGE FACILITIES

Item	Drawing		Approximate Tank Capacity (Gallons)
<u>Number</u>	<u>No.</u>	<u>Tank Description</u>	
1	M-503	Unit 6 turbine oil storage tank	2 @ 8100 = 16,200
2	9E-1001	Oil-additive (smoke suppressant) storage tank for peaker	1,000
3A	9E-1001	Unit transformers #6 375000 KVA	14,400
3B	9E-1001	" " #5 140000 KVA	3 @ 3705 = 11,115
4A	9E-1001	Main transformer #31 80000 KVA	7,200
4B	9E-1001	" " #32 80000 KVA	7,055
4C	9E-1001	Unit auxiliary transformer #51 7500 KVA	1,960
4D	9E-1001	" " " #52 6000 KVA	1,960
4E	9E-1001	" " " #53 7500 KVA	1,960
4F	9E-1001	" " " #61 16667 KVA	2,147
4G	9E-1001	" " " #62 16667 KVA	2,147
4H	9E-1001	" " " #63 12500 KVA	1,650
4I	9E-1001	" " " #09 333 KVA	3 @ 170

II. LIST OF OIL STORAGE FACILITIES (CONT'D)

<u>Item Number</u>	<u>Drawing No.</u>	<u>Tank Description</u>	<u>Approximate Tank Capacity (Gallons)</u>
5A	9E-1001	Station Auxiliary transformer #79 60000 KVA	7,022
5B	9E-1001	" " " #78 20000 KVA	3 @ 5,200
5C	9E-1001	" " " #77 60 MVA	14,700
5D	9E-1001	" " " #91 7500 KVA	1,536
5E	M-500C	" " " #66 1500 KVA	183
5F	M-500C	" " " #67 1500 KVA	217
5G	M-500C	" " " #611 1500 KVA	245
5H	M-500C	" " " #612 1500 KVA	245
5I	M-500C	Station Auxiliary Transformer #613 500 KVA	195
5J	M-500C	Station Auxiliary Transformer #614 500 KVA	195
5K	9E-1001	Coal Handling Transformer #1 3000 KVA	1,050
5L	9E-1001	Coal Handling Transformer #2 3000 KVA	1,050
5M	M-503	Station Auxiliary Transformer #94 300 KVA	123
6A	9E-1001	Trans 22 neutral 500 KVA	3 @ 62
6B	9E-1001	Trans 21 neutral 500 KVA	3 @ 92
6C	M-500C	Station Auxiliary Transformer #11 2000 KVA	403
7	M-503	Unit #6 turbine oil reservoir tank	7,350
8A	9E-1001	Peaker units oil reservoir tank	8 @ 1,750
8B	9E-1001	Peaker oil storage tank	770,000
9	9E-1001	Unit #9 diesel oil storage tank	35,000
10	M-500C	Diesel fuel for mobile Coal Handling equipment	21,000
11	NUS 5089ME3140	Roof and Yard Basin Oil Separator Unit/3 tanks @ 7500;700;290	
12	9E-1001	Oil Storage Room (Storeroom)	8,250
13	9E-1001	Storage Building for Waste Oil drums and Bermed Oil Storage area	10,000
14	M-503	Unit #6 Generator Neutral Transformer	50
15A	M-500D	5 Boiler Precipitator Rectifier Transformers(12 @ 140 each)	1680
15B	M-500C	Units 31 and 32 Underground Waste Oil Tank	3800
15C	M-505	Hydraulic Couplings 5A and 5B, FD and ID	4 @ 220-240
15D	9E-1001	Company Vehicle Gasoline Underground Storage Tank	1500
15E	9E-1001	Unit #9 Diesel Oil Reservoir Tank	5 @ 150
15F	9E-1001	Crib House Oil Storage Area	200
15G	M-503	Hydraulic Couplings Boiler Feed Pumps #15, #16, #17	3 @ 220
15H	M-500D	5 Boiler Precipitator Power Supply Transformer 750 KVA	172
15I	M-500C	Kerosene Tank	1000

II. LIST OF OIL STORAGE FACILITIES (CONT'D)

PCB - CONTAINING RESERVOIRS

<u>Item Number</u>	<u>Drawing No.</u>	<u>Tank Description</u>	<u>Approximate Tank Capacity (Gallons)</u>
16A	M-500C	Car Dumper Transformer #10 (Pyranol filled)	445
16B	M-500C	3&4 Blr. Precipitator Power Supply Transformer (Inerteen filled)	254
16C	M-500C	Coal Handling Transformers #3 & #4 (Noflanol filled)	2 @ 380
16D	M-500C	Peaker Aux Transformers #31 & #32	2 @ 160

AMMONIATED EDTA PLANS

17A	M-500	Boiler 5 (during cleaning process)	108,408
17B	NUS 5089ME3140	Metal Cleaning Waste Equalization Tank (when used for EDTA Storage)	260,000

138 KV SWITCHYARD

18	9E-1001	Bus 1 - 2
		0905 Line
		0903 Line
		0902 Line
		0908 Line
		0906 Line
		0904 Line
		0907 Line

- There are 42 (BZD-138-10000H) circuit breakers; each breaker has an oil capacity of 1170 gallons each, plus 9 (13809M10000) circuit breakers; each of these breakers having an oil capacity of 1175 gallons each.
- 18 pot transformers @ storage capacity of 214 gallons each, reclassified to non-PCB.
- Unit 5 transformer with 3 separate phases at a total storage quantity of 11,150 gallons.
- Two (2) reserve transformer oil storage tanks having an oil capacity of 1700 gallons.

34KV CIRCUIT BREAKER ROOM

19

9E-1001 Bus 1-3

- 12 (60-4-B) Circuit Breakers. Each breaker has an oil capacity of 106 gallons each.
- 6 (FK 34-5-1500-3), 18 (FK 34.5-1500-24), and 3 (FF 34.5-1500-1) Circuit Breakers. Each breaker has an oil capacity of 91 gallons.
- 18 (F20-40-34-F) and 6(F20-50-34-F) Circuit Breakers. Each breaker having an oil capacity of 125 gallons.
- There are 3 (346 1500) Circuit Breakers with a capacity of 73 gallons and one (CG 38) circuit breaker with a capacity of 220 gallons.

III. PLAN DESCRIPTION (for each item listed in II)

Turbine Oil Storage Tanks (Item 1)

Number of tanks: Two @ 8100 gallons each

Use of tanks: Stores turbine oil for Unit 6

Location: Main building on ground floor

Plan: Unit #6 oil storage tanks supply oil to the unit which is in service. In the event of an oil spill from one of these tanks, the oil would drain into the nearest floor drain and then flow into one of five bilge sumps and subsequently discharge to the Roof and Yard Basin. The oil collected by the Roof and Yard Basin's oil separator is pumped to the adjacent waste oil storage tank.

The turbine oil storage tank transfer pump controls are located in the turbine oil storage room. This is monitored by an operator during oil transfer. Any malfunction of the pumps will alert the operator who will initiate an investigation immediately.

Oil-Additive Storage for Peaker (Item 2)

Number of Tanks: One

Use of Tank: To store additive which is mixed with fuel for the peakers units.

Location: In shed, south of peaker unit pump house.

Plan: In the event of a spill, the additive and/or oil would spill to the floor and flow onto the ground in front of the shed. In the event of such a spill, clean up procedures will be initiated as soon as possible. If large enough, the spill could enter the Coal Pile Runoff Basin. The oil which reaches the basin will be processed through the oil separator.

The additive tank is equipped with a high and low level alarm which will indicate to the operator the conditions in the tank. Furthermore, operating personnel visually inspect the tanks daily. Records of any unusual observations and alarms will be kept.

Unit and Station Auxiliary Power Transformers (Items 3A through 5D, 6A, 6B)

Number of Transformers: 17 (2 Unit, 9 Unit Auxiliary, 4 Station and 2 Neutral Transformers)

Location: Various locations surrounding the main building.

Plan: The oil in these transformers is used as a coolant. Each transformer is installed on a separate concrete slab approximately 4" high. The pad is then surrounded by absorbent stone. The stone is installed as a fire protection device.

In the event of a spill, the absorbent stone will rapidly disperse the oil into the ground. This will prevent the mixing of the air and oil and the possibility of combustion. This stone will prevent any oil from reaching navigable waters. The oil filled absorbent stone, along with any saturated topsoil, will be removed and replaced with new stone as soon as possible. As an added precaution, in case of a massive spill in which the oil does not have time to diffuse into the stone, the oil would drain into local drainage ditches and enter the Roof and Yard Basin. The oil in the basin will be collected by the oil separator and stored in its waste oil tank for future off-site disposal.

These transformers are inspected by the electrical floor operator once per shift, three times per day. In the event of a major spill from a transformer, an alarm in the control room will notify station personnel that the transformer is malfunctioning. Upon receiving the alarm, an immediate investigation will take place to see if any clean-up or containment of oil is required. Records will be kept of each occurrence . Items 6A and 6B do not have level alarms.

Members of the Operational Analysis Department and Substation Construction make periodic inspections of all auxiliary transformers at least once per year.

Transformers 611 & 612 and Transformers 66 & 67

(Items 5E - 5H)

Number: 2 vacuum pressure building transformers (611 & 612) @ 245 gals. each, transformer 66 @ 183 gals. and transformer 67 @ 217 gals.

Location: East of Vacuum Pressure building.

Plan: In the event of a spill the oil would drain to the nearest trench where it would go to the Roof and Yard Basin. The oil separator there would then remove it. The area around the transformers is checked each shift for unusual conditions which are reported to the Shift Engineer promptly. The transformers are also inspected monthly for leakage.

Main Waste Water Treatment Building Transformers #613 and #614 (Items 5I, 5J)

Number: 2 @ 195 gals. each

Location: North of waste water treatment building

Plan: In the event of a spill, the oil would be soaked up by oil absorbent gravel and contained by an 18 inch high concrete brim around the transformers. The oil filled absorbent stone would then be removed and replaced with new stone as soon as possible.

The transformers are checked monthly, for oil leakage.

Coal Handling Transformers #1 and #2 (Items 5K and 5L)

Number: 2 @ 1,050 gals. each

Location: Southeast corner of the Breaker House

Plan: In the event of a spill, the drainage area is sloped in the direction of the Santa Fe ditch which ultimately discharges into the Roof and Yard Basin. Oil would be collected by the oil separator and stored in its waste oil tank for future off-site disposal.

Station Auxiliary Transformer #9 (Item 5m)

Number of tank: One @ 123 Gallons

Location: East of Boiler 5 Condensor

Plan: This Transformer was reclassified to Non-PCB. This Transformer has 6" concrete berm that will hold 110% of the tank capacity. In the event that oil was to escape the berm and reach a floor drain, the oil will end up in the roof and yard basin. Oil will be collected by the oil separator and stored in its waste oil tank for future off-site disposal.

Station Auxiliary Transformer #11 (Item 6C)

Number of Tanks: One @ 403 Gallons

Location: Substation Construction Shop

Plan: In the event of a spill, oil would enter the nearest floor drain. Since the station drains are tied into the roof and yard runoff basin, the oil will be collected by the roof and yard basin's oil separator and stored in its adjacent storage tank for future off-site disposal.

Unit #6 Turbine Oil Reservoir (Item 7)

Number of Tanks: One

Use of Tanks: Supplies turbine oil for cooling and lubrication.

Location: Under Unit 6 Turbine-Ground Level. See DWG. M-503.

Plan: In the event of a large spill from this tank, oil would enter the nearest floor drain and/or flow into one of a number of bilge sumps. The oil would subsequently be discharged into the Roof and Yard Basin where it would receive additional treatment through the basin's own oil separator.

Each shift three times a day an operator inspects the turbine oil reservoirs for leakage. Any unusual observations will be reported to the shift engineer for immediate corrective action.

Peaker Unit Oil Reservoir Tanks (Item 8A)

Number of tanks: Eight, one per unit.

Use of tanks: Storage of peaker oil for cooling and lubrication.

Location: On east side of each peaker unit.

Plan: There are drains at the base of each peaker unit which will deliver any oil spill or minor leaks to an underground oil storage tank. This tank has a capacity of 3800 g., which is large enough to contain all of the oil from a minimum of two oil reservoir tanks.

The underground storage tank is checked daily and oil is pumped out when the level merits (approximately every three months).

The oil reservoir tanks are equipped with oil level gauges and audible alarm systems. High or low level will trip the alarm at which time an immediate inspection is made. A record of alarms or any unusual occurrences will be kept.

Peaker Oil Storage Tank (Item 8B)

Number of Tanks: One

Use of Tanks: Store fuel for peaker units.

Location: East of blocks #31 and #32.

Plan: The oil storage tank is surrounded by a single impermeable berm which is designed to contain 125% the total capacity of the tank.

A stand-pipe located on the east side of the berm can be lowered to allow any accumulated rainwater to drain to a culvert. This stand-pipe is locked in the up position. Before water is drained, the contents of the berm will be checked for oil. Any oil in the berm will be removed prior to draining.

In the event of a spill, the berm will contain the oil. The spilled oil will be pumped from the berm and disposed of in a safe and proper manner. Any oil-soaked berm material will be removed and replaced with clean material. As an additional precaution, if any of the oil escapes from the berm it will drain into either the coal pile storage area or into a drainage ditch nearby. In either case, if the escaping oil is large enough it will eventually reach the Coal Pile Basin. The oil will be collected by the basin's oil separator.

Operating personnel visually inspect tank foundations and piping for oil leaks and signs of deterioration three times per day. Any unusual observations are reported to the Shift Engineer.

In addition, the tank will be subjected to a thorough visual integrity test on an annual basis.

The tank has an oil level indicator which is equipped with a high a low level alarm. The tank level is read and recorded each shift at the switchboard.

All control valves are securely locked to prevent any tampering by unauthorized persons.

Unit #9 Diesel Fuel Storage Tank (Item 9)

Number of Tanks: One

Use of Tanks: Storage of diesel fuel for diesel units.

Location: Northeast corner of main building.

Plan: The diesel fuel storage tank is surrounded by a single impermeable berm which is designed to contain the total capacity of the tank.

A portable sump pump is used to remove any accumulation of rainwater. Prior to draining the water the contents of the berm will be checked for oil. Any oil in the berm will be removed prior to draining.

In the event of a spill, the berm will retain the oil. The spilled oil will be pumped from the berm and disposed of in a safe and proper manner. Any oil soaked berm material will be removed and replaced with clean material. If for any reason all the oil is not arrested by the berms, the oil will enter a drainage ditch nearby and flow into the Roof and Yard Basin. The oil will be collected either through use of the basin's oil separator or by skimming the oil from the basin's water surface. Records will be kept.

Operating personnel visually inspect tank foundations and piping for oil leaks and signs of deterioration three times per day. Any unusual observations are reported to the shift engineer. In addition, the tank will be subjected to a thorough visual integrity test on an annual basis.

Diesel Oil Storage Tank for Mobile Coal Handling Equipment (Item 10)

Number of Tanks: One

Use of Tanks: Storage of fuel for diesel mobile equipment.

Location: West of breaker house.

Plan: The diesel oil storage tank is surrounded by a single impermeable berm which is designed to contain partial capacity of the tank as the primary means of containment. Secondary and complete containment is provided by the roof and yard basin.

A portable sump pump is used to remove any accumulation of rainwater. Prior to draining the water, the contents of the berm will be checked for oil. Any oil in the berm will be removed prior to draining.

In the event of a partial spill, the berm will retain the oil. The spilled oil will be pumped from the berm and disposed of in a safe and proper manner. Any oil soaked berm material will be removed and replaced with clean material. Oil which might accidentally escape the berm or in a complete spill, overflow the berm, will ultimately end up in the Roof and Yard Runoff Basin via local drainage ditches. Roof and Yard Basin has more than enough capacity to contain any spill from this tank and is also equipped with oil/water separation. Records will be kept.

Operating personnel periodically inspect tank foundations and piping for oil leaks and signs of deterioration. Any unusual observations are reported to the Shift Engineer.

Oil Separator Units (Item 11)

Number of Tanks: 3 (1 oil separator unit, each unit having 3 tanks)

Use of Tanks: Used for collecting and storing oil from station wastewaters.

Location: Roof and Yard separator located east of basin.

Plan: The oil separator unit consists of three tanks: (1) the oil separator itself (7,500 g.) which always contains some oil, 2) the oil receiving tank (290 g.), which serves as a transfer point to 3) the separator's waste oil storage tank (700 g.).

The design of the oil separator and its receiving tank is such that they are sealed and have no overflow. An oil spill could be caused by a carryover of oil with the effluent which can occur as a result of malfunctioning automatic controls. Upon failure of any automatic controls, the Roof and Yard Basin is switched manually to a recirculation mode. The pond would be kept on this recirculation mode until the automatic controls were repaired or until there was no possibility of any carryover of oil in the effluent and the pond could be discharged manually.

The Roof and Yard Separator waste oil storage tank is surrounded by a concrete curbing designed to contain full tank capacity in the event of a spill. Both waste oil storage tanks have high-level alarms. Both storage tanks' levels and the oil separator's control settings will be checked each shift, three times per day. The waste oil in the storage tanks will be disposed of properly off-site by a special waste permitted hauler.

Oil Storage Room (Storeroom) (Item 12)

Number: maximum of 150 drums each having a capacity of 55 gallons are stored in a concrete room

Location: Storeroom 2nd floor - northwest end

Plan: There is a 12" lip at the entrance to this area which would prevent the oil from spilling to other areas. Floor drains ultimately discharge to the Roof and Yard Basin via the Santa Fe ditch. Spills would be contained in the basin and collected by the oil separator. The contents of this room is inspected daily by storeroom personnel. Unusual observations will be reported immediately to the Shift Engineer.

Storage Building For Waste Oil Drums and Bermed Oil Storage Area (Item 13)

Number of Tanks: Maximum of 75 drums, each having a capacity of 55 gallons, are stored in a small concrete building. Another 75 drums can be stored on a bermed concrete pad which formerly housed the pug mill storage tank.

Use of Tanks: Storage of waste-oils.

Location: West of main building.

Plan: Drums of used or contaminated oil are stored temporarily in this building. In the event of a large spill from any one of the drums, the oil would drain out the entrance door and enter a drainage trench nearby. The oil would then gradually reach the Roof and Yard Basin where it will be recovered by the oil separator. As a precautionary measure, a berm was constructed at the entrance so that nominal spills would be contained within the building.

The storage building will be inspected each shift, three times per day. Leaks or spills will be immediately reported to the Shift Engineer.

Immediately west of the building is a bermed concrete pad which can hold an additional 75 drums of oil. This storage area formerly housed the pug mill oil storage tank which was removed from service in 1989.

Unit 6 Generator Neutral Transformer (Item 14)

Number of Tanks: One

Location: Grade level, below east end of high pressure generator.

Plan: This transformer was replaced in 1989 and contains silicone oil. It has a 6 inch concrete brim built around its perimeter to contain any oil which spills or leaks from the transformer. In the unlikely event the oil would spill over the concrete brim, all oil would be contained in the Roof and Yard basin via floor drains to the Santa Fe ditch which ultimately discharges to the basin.

Boiler #5 Precipitator Rectifier - Transformers (Item 15A)

Number of Tanks: 12 @ 140 gals. each.

Location: Precipitator roof.

Plan: The insulating oil for each of the twelve rectifier-transformer units is contained in cylindrical reservoirs on the steel precipitator roof. In the event of a spill the oil would drain down to the station roof and enter the nearest roof drain. Since the roof drains are tied into the Roof and Yard Runoff Basin, the oil will be collected by the basin's oil separator and stored in its adjacent storage tank for future off-site disposal. In the event of a slow leak, the drop in oil level in the transformer would ultimately cause it to trip which will be detected by the operator during his rounds each shift. If upon investigation an oil leak is found, the Shift Engineer will be immediately notified.

Units 31 and 32 Underground Waste Oil Tank (Item 15B)

Number of Tanks: One @ 3800 gals.

Location: South of peaking units.

Plan: In the event of a spill, the oil would either go into a drainage ditch nearby or into the coal pile storage area. In either case the oil would eventually reach the Coal Pile runoff Basin. The oil would then be collected by the basin's oil separator.

Operating personnel inspect Units 31 and 32 and their associated equipment once each shift for abnormal conditions. Any oil leakage is reported to the Shift Engineer.

Hydraulic Couplings - 5A and 5B, FD and ID Fans (Item 15C)

Number of Tanks: 4 @ 220 - 240 gals. each.

Location: Building Roof, north side of 8 1/2 level.

Plan: In the event of a spill, oil would enter the nearest floor drain and eventually end up in the Roof and Yard Basin where it would then be collected in the oil separator.

Each shift the fans are checked for proper operation and any unusual conditions. Any problems are reported to the Shift Engineer for immediate action.

Company Vehicle Gasoline Underground Storage Tank (Item 15D)

Number of Tanks: One at 1500 gals.

Use of Tank: Gas for company vehicle

Location: West yard.

Plan: In the event of a spill, the gas would drain down a hill and into a nearby ditch where it ends up in the Roof and Yard Basin. Here it would be collected by the oil separator.

Once per day, the underground gasoline storage tank is checked by an operator. Furthermore, this tank is also equipped with high level alarms and leak detectors. Any unusual conditions are reported to the Shift Engineer.

Unit #9 Diesel Oil Reservoir Tanks (Item 15E)

Number of Tanks: 5 with a capacity of 150 gals. each.

Location: Each tank is found at the base of a diesel unit.
The units are located N.E. of the main building
and south of the Santa Fe tracks.

Plan: In the event of a spill the oil would flow to a
nearby ditch and out to the Roof and Yard Basin
where it would be collected by the oil separator.
The diesels are inspected once each shift for
unusual conditions. Any problems are brought to
the attention of the Shift Engineer.

Crib House Oil Storage Area (Item 15F)

Use: Store new and used oil drums for use in the Crib House.

Location: Inside the Crib House

Plan: Oil drums sit on a concrete pad which is surrounded by an 8 inch concrete brim. Any oil leakage will be contained within the brim. The Crib House is inspected once each shift for unusual conditions which are promptly reported to the Shift Engineer.

Hydraulic Couplings - 15, 16, 17 Boiler Feed Pumps (Item 15G)

Number of Tanks: Three @ 220 gals.

Location: South side of basement area

Plan: In the event of a spill, oil would enter the nearest floor drain and event totally end up in the roof and yard basin where it would then be collected in the oil separator. Each shift the boiler feed pumps are checked for proper operation and any unusual conditions. Any problems are reported to the Shift Engineer for immediate action.

5 Boiler Precip Power Supply (Item 15H)

Number of Tanks: One @ 172 gallons

Location: Boiler 5 Roof

Plan: This transformer has a six inch concrete brim built around the perimeter to contain any oil which spill or leaks from the transformer. In the unlikely event the oil would spill over the concrete brim, all oil would be contained in the roof and yard basin via floor drains to the Santa Fe Ditch which ultimately discharges to the roof and yard basin. This transformer is included in the monthly inspection list.

Kerosene Tank (Item 15I)

Use of Tank: Fuel for space heater

Tank Capacity: 1,000 gallons

Location: East Yard

Plan: This tank is filled in December each year and emptied in April of each year. This fuel is used for filling space heaters for winter heating. In the event of a spill the kerosene will flow to the rocks and into the ground. The ground will prevent any fuel from reaching navigable waters. The fuel saturated top soil will be removed and replaced as soon as possible.

PCB - Containing Reservoirs *

16A - Car Dumper Transformer #10 (445 gals. Pyranol)

16B - 3&4 Blr. Precipitator Power Supply Transformer (254 gals.,
Inerteen)

16C - Coal Handling Transformers #3 & #4 (380 gals. Noflamol)

16D - Peaker Auxiliary Transformers 31 & 32

The handling, use, and storage of PCB-containing liquids at Joliet Station is performed using Joliet Station #9 Procedure No: EM-ST9-XX-001, "PCB Control".

A copy of this procedure is included in Appendix B.

In the event of a leak or spill which reaches a floor drain, the PCB-oil will ultimately end up in the Roof and Yard Basin. The basin will then be tested for PCB content if necessary prior to discharge into the river.

The above transformers are included in the monthly inspection list described under Section VI, "Record Keeping".

*NOTE: All PCB Transformers listed above are currently undergoing a PCB retrofill program, wherein, the PCB fluid is removed from the transformer, and it is refilled with silicone oil. The transformers are still classified as PCB contaminated, however, we expect to be completed with this program in 1995. Upon completion the transformers will be classified as non-PCB.

AMMONIATED EDTA PLANS

Item 17A - Boiler 5 (during cleaning process) - 108,408 gal.

17B - Metal Cleaning Waste Equalization tank - 260,000 gal.

(when used for EDTA Storage)

Ammoniated EDTA is used at Joliet Station to chemically clean the steam sides of its boilers. Prior to the start of any chemical cleaning, station personnel, Technical Services personnel and the chemical cleaning contractor prepare detailed procedures for the cleaning process, for the disposal of subsequent boiler drainage and for any leakage that might occur during the cleaning of the boiler. Reference Joliet Station Procedure No. MOP-6-E-XX-002, Boiler 5 Chemical Cleaning RCRA Requirements for additional discussion about chemical cleaning waste control.

In the event of a leak or spill which would spill on the floors beneath Boiler 5, floor drainage would be diverted from the Unit 6 Bilge Sump to a temporary storage location, which presently is in the WWT Metal Cleaning Waste Equalization Tank. This tank is set up to handle chemical cleaning waste and has chemical burn pump located at the tank suction to pump spent cleaning waste back to Boiler 5 for incineration.

As protection against inadvertent discharge of the spent cleaning waste to the Roof and Yard Basin, the Metal Cleaning Waste Equalization Tank control valve isolation valves and bypass valve, and the tank drain valve will be closed and taken Out of Service whenever the tank contains ammoniated EDTA wastes. When the tank is eventually drained, the manway cover will be opened and the tank rinsed out prior to returning it to normal service.

In the event of a leak or spill which is not contained as planned, such leakage would ultimately end up in the Roof and Yard Basin. The basin, which would show tinges of rust color, will then be tested for ammoniated EDTA content and be disposed of in an environmentally acceptable manner.

During the chemical cleaning process, continuous surveillance is maintained by plant operating and Technical Staff personnel to assure every effort is made to control ammoniated EDTA waste leakage. After the chemical cleaning is complete, the Metal Cleaning Waste Equalization Tank, if used to store ammoniated EDTA wastes, will be included in the monthly inspection list, described in page 37 under "Recordkeeping", until the remaining ammoniated EDTA is cleaned out.

In the event of a leak or spill which enters navigable waters of the state please refer to Joliet Station #9 Procedure No: ADM-ST9-PG-XX-001, Hazardous Material Incident Reporting.

138 KV Switchyard (Item 18)

Number of Tanks: 74

Use of Tanks: These are oil circuit breakers and transformers which contain oil as a coolant.

Location: South of main building.

Plan: In the event of a spill from any piece of equipment in this yard, oil would fall to the ground which is covered with oil absorption stone.

The oil absorption stone is installed as a fire protective device. The stone will rapidly disperse the oil into the ground. This will prevent the mixing of the air and oil and the possibility of combustion. This stone will prevent any oil from reaching navigable waters. The oil filled absorbent stone, along with any oil saturated topsoil, will be removed and replaced as soon as possible. The switchyard is also curbed on all sides as an added precaution. Runoff from this enclosed area is routed into the Coal Pile Basin.

The transformers are equipped with alarms which will sound in the control room. Station personnel will make an immediate investigation of all alarms.

The switchgear on Joliet property is maintained on a periodic schedule by Operational Analysis Department and Substation Construction. These periodic inspections are scheduled by a computer program. Records of these investigations are kept by the respective department.

Daily inspections are also performed once per shift by the electrical floor operator. Abnormalities are reported to the Shift Engineer.

34 KV Circuit Breakers Room (Item 19)

Number of Tanks: 67

Use of Tanks: Oil circuit breakers which contain oil as a coolant.

Location: Above Switchboard room.

Plan: In the event of a small spill the oil will be contained in the 34 KV CB Room. In the event of a large spill, oil would enter the nearest floor drain. Since the station drains are tied into the roof and yard basin, the oil will be collected by the roof and yard basin's oil separator and stored in its adjacent storage tank for future off-site disposal.

The circuit breakers are inspected on a weekly basis any unusual observation will be reported to the Shift Engineer for immediate corrective action.

IV. OIL TRANSFER SYSTEM

All oil unloading at the station, be it to/from tank-trucks or to/from tanks and drums is performed under scrutiny by operators. Among items checked by operators before and during unloading are:

- 1) Hose couplings are checked for tight fit and leaks. Old worn hoses will be replaced.
- 2) When transfer pumps are used, valving at the source and at the destination of the oil is checked for correct positioning.
- 3) When loading into tank-trucks, the lower drains are checked for leakage. An operator is always present during unloading, to verify the transfer hose is disconnected prior to the truck's departure.

There are drainage trenches near all loading/unloading facilities outdoors so that any spills which are large enough to reach them will drain into one of the two large basins. Most unloading spills will be small enough to remain locally, after which it can be removed along with any of the soaked dirt or gravel and disposed of properly.

There are appropriate fire protection equipment and posted safety signs near all unloading facilities.

V. OIL SPILL HISTORY

There have been two cases of oil discharges into the DesPlaines River since the 1974 inception of an SPCC plan at Joliet Station 9:

- 1) On May 24, 1977, a small amount of oil (25 gal.) was estimated to be spilled when Unit #5 oil storage tank was overfilled.
- 2) On July 13, 1977, a gauge line on Unit #5 turbine high pressure lift pump leaked oil, of which a trace escaped into the water way.

See Appendix B for detailed descriptions of these spill events.

VI. RECORD KEEPING

As mentioned in the plans for each individual storage facility, a record of unusual observations indicative of oil leaks or which might lead to a spill will be kept. The Shift Engineer and Regulatory Compliance Engineer will be notified first so that they may determine the necessary corrective actions. Details of the observance or incident along with the corrective measures taken will be entered in the Wastewater Log Book. The log book is kept in the Technical Staff Office. A separate Environmental Log Book is kept in the Shift Engineer's Office.

A monthly visual inspection of each storage facility under the jurisdiction of Joliet #9 listed in pages 6-9 will be conducted. The checklist for this inspection has a list of the facilities with a blank space after each item for comments. The checklists will be changed to agree with the revised SPCC Plan of February, 1993. The monthly checklist will be reviewed and approved by the Shift Engineer and by the Compliance Engineer. The checklists will be filed in the Compliance Engineer's Office.

Additional visual integrity-tests records will also be kept in the Compliance Engineer's Office.

VII. TRAINING

Managers and operators who are directly involved with the operation and handling of oil containing facilities will be trained annually not only in the proper operation of the equipment to prevent accidental oil discharges, but in the proper containment and cleanup of oil spills. This training is incorporated into the annual hazmat training. The trainees will practice with the cleanup materials that are available on site and where they will be stored. Attached in Appendix B is a list of these clean up materials.

VIII. IMPLEMENTATION OF PLAN

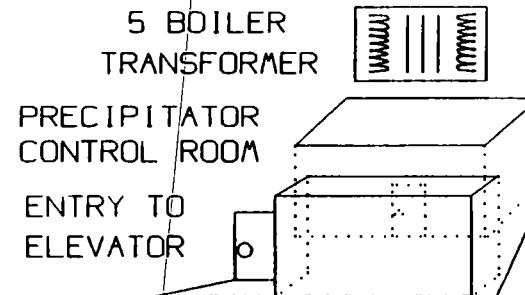
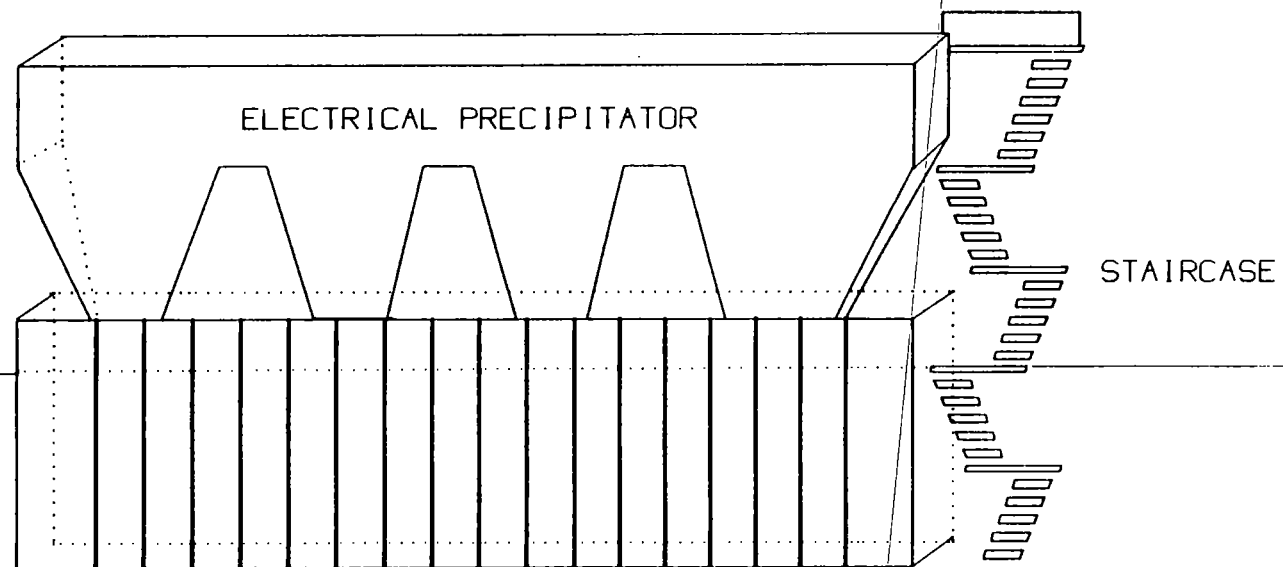
The procedure described in this plan will be fully in effect as of this writing.

Overall responsibility for adherence to this Plan, including follow up on corrective actions, is assigned to the Designated Operating Superintendent, a person in the station organization at a level of Station Operating Engineer or higher designated by the Plant Manager. The Joliet 9 State Certified (Class VII) Wastewater Treatment Operator shall review system operation and provide technical direction toward corrective actions.

The focal point of action, however, is the Shift Engineer. Upon discovery of an oil spill into the river he will be notified immediately so that he may determine the need for and to initiate any necessary corrective actions. The Regulatory Compliance Engineer will be notified as well.

Reporting of spills into the DesPlaines River shall be done in accordance with Joliet Station 9 Procedure No.: ADM-ST-PG-XX-001 entitled, "Hazardous Material Incident Reporting". A copy is attached to Appendix B. All releases above the reportable quantities must be reported to the NRC telephone #1-800-424-8802.

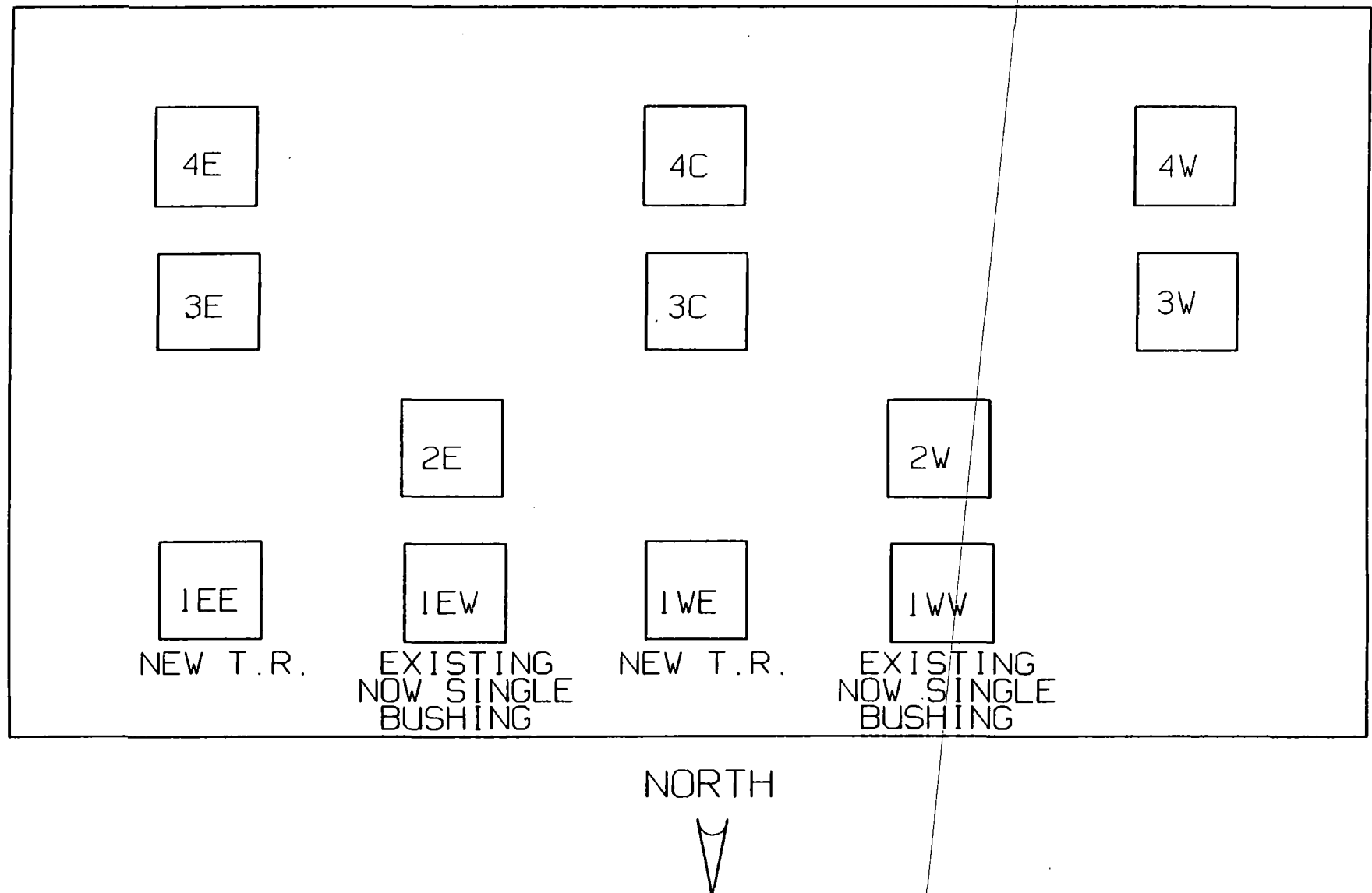
APPENDIX A

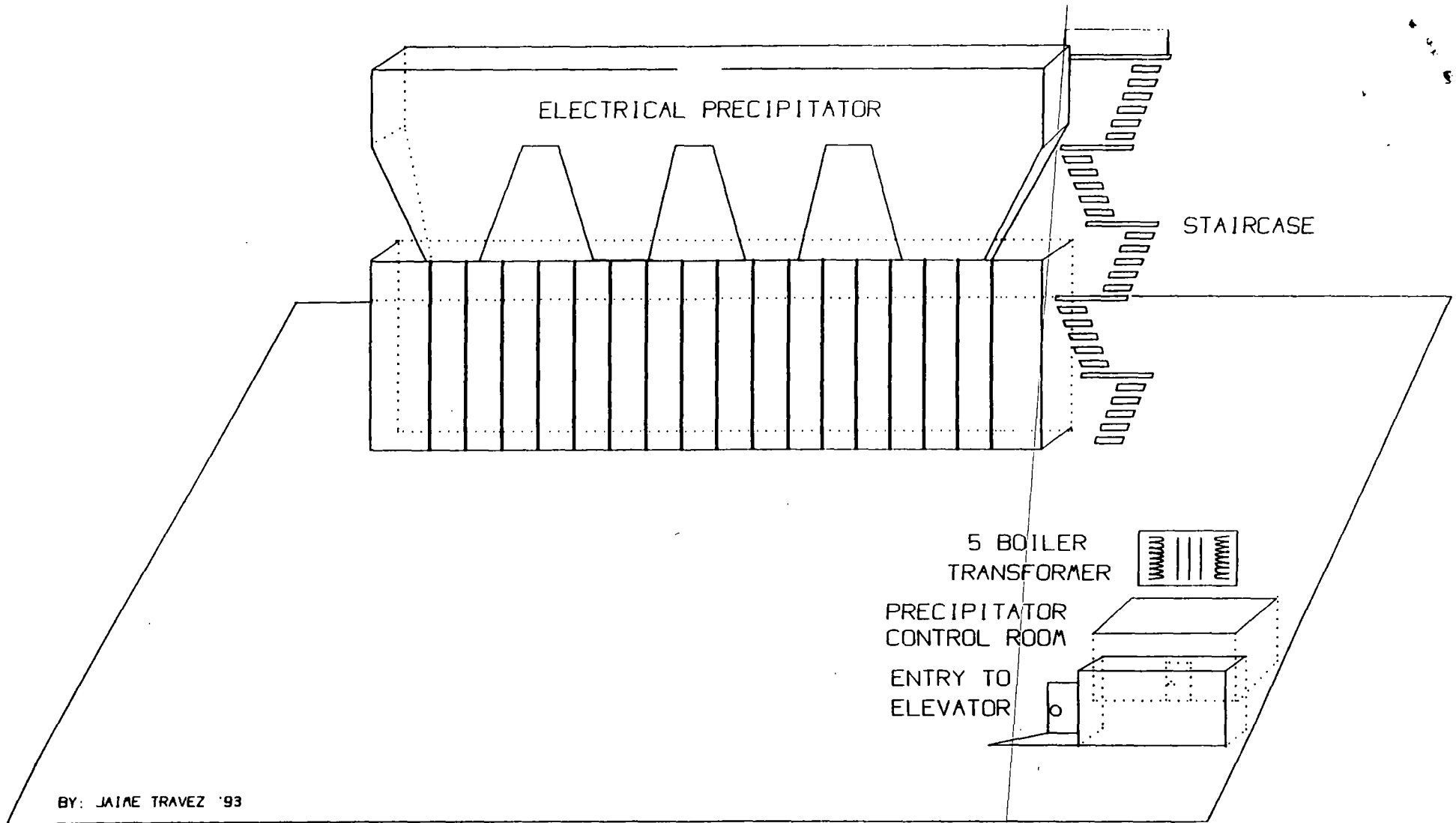


BY: JAIME TRAVEZ '93

SECTION VIEW OF ROOF LEVEL
JOLIET STATION #9
DRAWING M-500D

PLAN VIEW OF PRECIPITATOR ROOF





BY: JAIME TRAVEZ '93

SECTION VIEW OF ROOF LEVEL
JOLIET STATION #9
DRAWING M-5000